

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015867**Date Inspected:** 27-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** John Pagliero**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 5E/6E side plate 'C' (7478mm to 9855mm) inside, QA noted the welding of the splice at this location was completed and the welder has moved to location 9855mm to 10555mm. This location is being done manually using the SMAW due to the FCAW-G Bug-o track was inaccessible to this location. QA has randomly observed welder Sungtao, Huang ID # 3794 welded the root pass by hand with the SMAW in 3G (vertical) position. The welder continued to perform CJP groove (splice) welding fill pass on the splice butt joint using the same process with 1/8" diameter, E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040C Rev. 1. The joint being welded had a single V-groove butt joint with backing bar. The splice joint was preheated using propane gas torch prior welding. ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding of the splice joint was still continuing and should remain tomorrow.

At OBG 5E/6E bottom plate 'D2' (7000mm to 8500mm) inside, QA randomly observed ABF/JV qualified welder Hua Qiang Hwang perform CJP groove (splice) welding root pass then fill pass on the splice butt joint. The welder was observed performing manual welding in the 1G (flat) position utilizing a dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040A-1. The joint being welded had a single V-groove butt joint with backing bar and was partially welded using Submerged Arc Welding (SAW) on most part of the joint. But

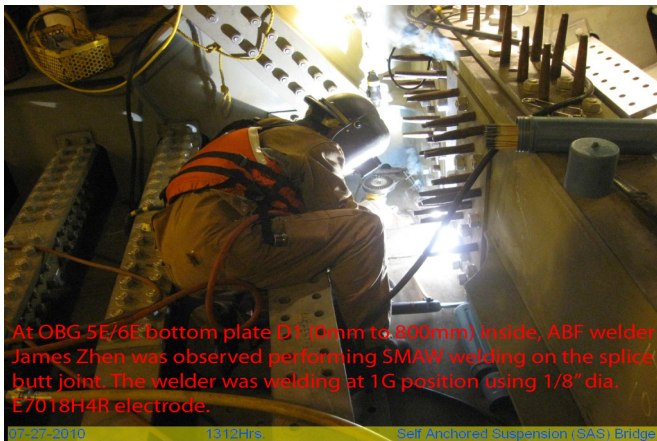
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due to limited access of the SAW track to the corner location, welding was not completed. The splice joint was preheated to greater than 150 degrees Fahrenheit using propane gas torch prior welding. ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding of the splice joint at location mentioned above was not completed and should continue tomorrow.

At OBG 5E/6E bottom plate 'D1' (0mm to 800mm) inside, QA randomly observed ABF/JV qualified welder James Zhen perform CJP groove (splice) welding root pass then fill pass on the splice butt joint. The welder was observed welding in the 1G (flat) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8" diameter, E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040C Rev. 1. The joint being welded had a single V-groove butt joint with backing bar and was partially welded using Submerged Arc Welding (SAW) on most part of the joint. But due to limited access of the SAW track to the corner location, welding was not completed. The splice joint was preheated using propane gas torch prior welding. ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding of the splice joint was still continuing and should remain tomorrow.

At OBG 4E/5E side plate 'E' outside, QA noted plasma arc gouging on the backing bar removal of the splice butt joint was completed and the ABF personnel were preparing to move to the other side plate 'C' of the same OBG. The personnel were noted moving their Esab plasma arc machine and lining up their Bug-o track.



Summary of Conversations:

At OBG 5E/6E side plate 'C' (0mm to 1000mm) inside, it was previously reported that there were excessive weld cover reinforcement that were discovered by ABF QC. Today, QA noted welder Songtao, Huang grinding the excessive reinforcement to make it in compliance to the contract requirements. At the end of the shift, grinding of the excessive cover reinforcement was completed and excessive reinforcement was removed.

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At OBG SE/6E side plate 'C' inside, ABF welder Songtao, Huang was noted grinding off the excessive reinforcement that was found by ABF QC John Pagliero during his VT of the welded splice joint.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
